

Horse Creek Stewardship Program



The Horse Creek Stewardship Program (HCSP) was established in 2003. It is a collaboration between the Peace River/Manasota Regional Water Supply Authority (Authority) and Mosaic that provides ongoing monitoring of water quantity and quality at four permanent stations along the Horse Creek, a major tributary of the Peace River that stretches from Hardee to Desoto counties. In addition to monthly water quality sampling, monitoring activities also include biological sampling three times per year at every station.

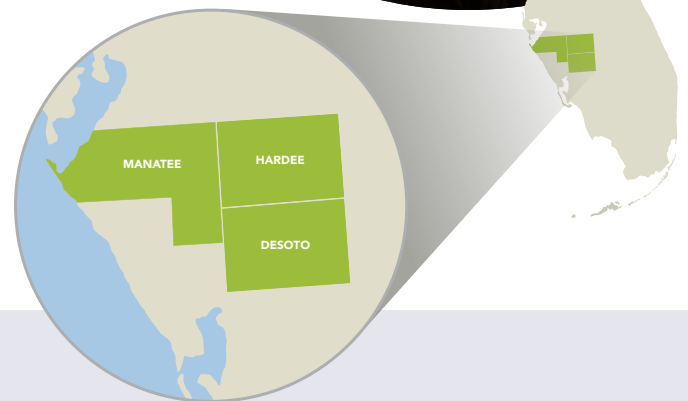
Water Quality & Quantity

Horse Creek's monitoring efforts are more inclusive and extensive than ordinary standards and are designed to flag potential problems – regardless of source – in the watershed. The information that gets collected is evaluated to identify and analyze significant trends in the watershed.

Continuous monitoring activities in the basin include:

- Stream flow examination by the U.S. Geological Survey (USGS)
- Rainfall gauging stations
- National Pollutant Discharge Elimination System (NPDES) outfalls
- Real-time early warning systems

Each month, surface water samples are collected for physical parameters like temperature, pH, specific conductance, dissolved oxygen, and turbidity as well as chemical parameters such as nitrogen, phosphorous, and chloride, to name a few.



Biological Sampling

The Horse Creek Stewardship Program requires samples of benthic macroinvertebrates and fish to be taken three times annually. These sampling events are performed to gauge whether Mosaic's mining within the Horse Creek basin is causing any adverse changes to the biological community. Because of these annual biological samples, Horse Creek is now one of the most well-studied creeks in the state of Florida.



Reporting & Evaluation

On a monthly basis, program-generated data is submitted to the Authority for review. If any changes in the stream's condition are detected,

it will trigger an impact assessment or corrective action. What makes the Horse Creek Stewardship Program unique is that it does not solely rely on surpassing water quality standards to take corrective measures. The program was established to also address the impact of any trigger level exceedance or ongoing trend and apply proactive remedial steps if needed.

In addition to monthly reports, a third-party consultant prepares an annual monitoring report which details all monitoring program progress and findings for the prior year. The Horse Creek Technical Advisory Group (TAG), which is comprised of representatives from each county, the Authority and Mosaic, is responsible for review and final approval of the report.